

**REMARKS**

Applicants thank the Examiner for the consideration given this application. Claims 26-28, 29-36, and 38-55 are pending in this application. Claims 26, 34 and 42 are independent claims. Claims 26, 34, 42, 45 have been amended; it is respectfully submitted that the amendments to these claims are supported at least by Figs. 9A and 9B and paragraphs 51-54. New Claims 53-55 have been added, and it is respectfully submitted that these claims are supported at least by the claims as previously presented and by the aforementioned sections. Claims 29 and 37 have been cancelled without prejudice. Reconsideration and allowance of the present application are respectfully requested.

**Claim Rejections under 35 U.S.C. §102**

Claims 26, 27, 29, 34, 35, 37, 42, 43 and 45 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication No. 2002/01679931 to Jang et al. (hereinafter “Jang et al.”). These rejections are respectfully traversed for at least the following reasons.

Applicants respectfully submit that Claims 26, 34, and 42 all contain elements that are not disclosed or suggested by Jang et al. For example, Claim 26 (as amended) includes the recitation, “transmitting data on a transmit frequency band of said selected frequency hopping pattern if said energy level indicates a particular condition of said monitored frequency band, wherein a timing of further data transmission according to the selected frequency hopping pattern is determined based on a time at which the particular condition is met.” Similarly, Claim 34 (as amended) includes the recitation, “means for transmitting data on a transmit frequency band of said selected frequency hopping pattern if said energy level indicates a particular condition of said monitored frequency band, wherein a timing of further data transmission according to the selected frequency hopping pattern is determined based on a time at which the particular condition is met.” Finally, Claim 42 (as amended) includes the recitation, “wherein a timing of further data transmission according to the selected frequency hopping pattern is determined based on a time at which the particular condition is satisfied.”

In Jang et al., as shown, for example, in Figs. 8 and 9B, a user is required to monitor each frequency *in each slot* prior to transmitting. This is further shown in Fig. 7, noting block S750,

which refers to transmitting through an allocated transmission slot, as well is in Claim 1 of Jang et al. (page 3), in which all the claim elements discuss a particular transmission slot. Thus, Jang et al. requires a great deal of further monitoring, following monitoring an initial frequency band, unlike the claimed invention, in which further data transmission may occur without further monitoring, once timing has been established, because the timing is established *for the frequency hopping pattern*. That is, ***Jang et al. requires slot-by-slot monitoring and does not address establishment of transmission timing according to a frequency hopping pattern, as claimed.*** Therefore, it is respectfully submitted that Jang et al. fails to anticipate Claims 26, 34, and 42 (or any of their dependent claims).

Applicants have also reviewed the other cited references and are unable to locate teachings that would remedy these deficiencies of Jang et al. Therefore, it is respectfully submitted that all claims pending in this application are allowable over the cited references.

#### **Claim Rejections Under 35 U.S.C. § 103**

Claims 28, 36 and 44 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jang et al. as applied to claims 26, 34 and 42 and further in view of U.S. Patent Publication No. 2003/0206561 to Schmidl et al. (hereinafter “Schmidl et al”). Claims 30, 38 and 46 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jang et al as applied to claims 26, 34 and 42 and further in view of U.S. Patent No. 6,333,937 to Ryan (hereinafter “Ryan”). Claims 31-33, 39-41 and 50-52 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jang et al as applied to claims 26, 34 and 42 and further in view of U.S. Patent No. 6,256,334 to Adachi (hereinafter “Adachi”). Claims 47 and 48 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jang et al as applied to claim 42 and further in view of U.S. Patent No. 7,110,472 to Sakoda et al. (hereinafter “Sakoda et al.”). Claim 49 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Jang et al as applied to claim 42 and further in view of U.S. Patent Publication No. 2003/0078006 to Mahany (hereinafter “Mahany”). These rejections are respectfully traversed for at least the same reasons as the above rejections under 35 U.S.C. § 102, given that the Office Action relies upon the teachings of Jang et al. in all of these

rejections and that Applicants respectfully submit that none of the cited references addresses the deficiencies of Jang et al., as noted above.

Applicants further note, with respect to the rejections of Claims 28, 36, and 44, that the secondary reference, Schmidl et al., is directed to channel coding for communications. While, as noted in the Office Action at page 6, Schmidl et al. discusses a scenario in which there are multiple frequency bands that may be used for transmission simultaneously, this is all that Schmidl et al. discusses relative to these claims. There is absolutely no nexus between what is shown and discussed in Schmidl et al. and monitoring a frequency band (to determine the presence or absence of a pre-existing transmission) to determine timing for transmission in another frequency band, as in the claimed invention. Paragraph 60, specifically cited in the Office Action at page 6, recites, “The transmit spectrum mask for mode 2 can be, for example, the same as Bluetooth, as shown in FIG. 4. For FIG. 4, the transmitter is transmitting on channel M and the adjacent channel power is measured on channel N. The FIG. 4 spectrum mask can be achieved, for example, by a raised cosine filter of  $\alpha=0.54$  and a 3dB bandwidth of 0.65 MHz for the symbol rate of mode 2.” In other words, Schmidl et al. is focusing on measuring adjacent-band power in order to determine an appropriate spectrum mask (filter). ***This has absolutely nothing to do with monitoring one frequency band in a time slot to determine when to transmit in a different frequency band,*** as in these claims. Therefore, for this further reason, Claims 28, 36, and 44 are allowable over the cited references.

### **New Claims**

Applicants have added new Claims 53-55, as noted above. These claims recite that, in addition to the elements recited in Claims 27, 35, and 43, respectively, for example, in Claim 53, “wherein transmitting data in the transmit frequency band is to commence following a predetermined time delay following completion of said pre-existing transmission.” The only timing information discussed in the Office Action is found in Jang et al., at paragraphs 32-34. In particular, these paragraphs refer to a “standby time of at least 250  $\mu$ s to switch to a transmission mode after receiving data.” That is, this period of time in Jang et al. is measured relative to the completion of data reception by a device, prior to transmission by the device, as opposed to be measured relative to the completion of a pre-existing transmission in a frequency band in which

the device would like to transmit. For at least this reason, it is respectfully submitted that these claims are allowable over the cited references.

**Additional Note**

Applicants have reviewed all Information Disclosure Statements and all Notices of References Cited in this application and have been unable to locate a formal citation of U.S. Patent No. 6,333,937 (“Ryan” – see above). Applicants request that this reference be formally made of record in a subsequent communication from the PTO.

**Disclaimer**

Applicants may not have presented all possible arguments or have refuted the characterizations of either the claims or the prior art as found in the Office Action. However, the lack of such arguments or refutations is not intended to act as a waiver of such arguments or as concurrence with such characterizations.

**CONCLUSION**

In view of the above, consideration and allowance are respectfully solicited.

In the event the Examiner believes an interview might serve in any way to advance the prosecution of this application, the undersigned is available at the telephone number noted below.

Applicant believes no fee is due with this response other than such fee as may be noted in an accompanying paper. However, if any further fee is due, please charge our Deposit Account No. 22-0185, under Order No. 27592-00837-US, from which the undersigned is authorized to draw.

Dated: December 15, 2008

Respectfully submitted,

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